

FAQs: The Drought and Sites Reservoir Frequently Asked Questions

As the drought continues, DWR engineers have been monitoring storage in Northern California reservoirs. On August 14, 2015, North-of-Delta (NOD) Storage, or total storage in Trinity, Shasta, Oroville, and Folsom reservoirs, went below 4.0 Million Acre-Feet (MAF). As shown in the figure below, NOD Storage has dropped below 4 MAF during each of the recognized droughts since the reservoirs were built. This is now the second year during the current drought that NOD Storage has dropped below 4.0 MAF. The end of August NOD storage (3.74 MAF) is similar to end of August NOD storage last year. NOD storage in 2014 eventually dropped below 3.0 MAF, for only the second time since the reservoirs were built. Only 1977 NOD Storage was lower, at 1.93 MAF. NOD Storage at the end of November 2014, the low point for the year, was 2.80 MAF. The Historical Total NOD Storage (pdf) shows storage, with drought periods, including the current drought highlighted in red.

How much water could Sites Reservoir add to storage in a drought year like this?

With historic runoff, current operations, and assumed implementation of Sites Reservoir NODOS Alternative C:

Drought¹ NOD Storage Increase = 1,120 Thousand Acre-Feet (TAF)

This would be a 23% improvement, reflecting additional water in storage in the four existing reservoirs and in Sites Reservoir during drought years. Sustaining additional water in storage during a drought is an essential tool for operators to support all of the water resources purposes associated with our reservoirs.

What other benefits would Sites Reservoir provide during drought?

This improved NOD storage would support a diverse set of water resources benefits. The improvements described below are happening simultaneously with the storage improvements described above. A direct result is improved cold water pools (CWP) in the reservoirs noted previously, which support anadromous fish populations downstream of their dams. For example, Shasta Lake's cold water pool would be improved, resulting in improved temperatures for salmonids in the Upper Sacramento River, below Shasta Dam.

Drought¹ CWP Improvement (May-September) in Shasta Lake = 280 TAF.

This would be a 15% improvement during these critical drought periods.

In addition to the storage and habitat improvements upstream (i.e. in and below the existing reservoirs), Sites also provides drought water supply benefits downstream.

The Drought¹ Delta Exports Water Supply Increase = 360 TAF/year.

This would be an 11% improvement in deliveries during critical drought years.

Notes:

¹ Drought performance is determined by the average performance during historic drought periods, years 1929-34, 1976-77, and 1987-92

Historical Total North-of-Delta Storage (Trinity + Shasta + Oroville + Folsom)

